

WHAT IS CLAIMED IS:

1. A template production system, comprising:  
a template production device to produce a layout template using at least one type of layout sample, each of the at least one type of layout sample including at least one layout element laid in a layout frame,  
the template production device producing the layout template such that a layout distribution of each layout element in the layout frame is registered in connection with corresponding likelihood in the layout template.
2. The template production system according to claim 1,  
at least one of the plurality of layout elements assigned a weighting factor, and,  
for the layout element assigned the weighting factor, the template production device weights the likelihood of the layout element in the plurality of layout samples by the weighting factor, and the template production device registers the layout distribution of the layout element in the layout frame in connection with the weighted likelihood.
3. A template production program, comprising:  
a template production program for producing a layout template using at least one type of layout sample, each of the at least one type of layout elements including at least one layout element laid in a layout frame, the template production program producing the layout template such that a layout distribution of each layout element in the layout frame is registered in connection with corresponding likelihood in the layout template.
4. A method of producing a template, comprising:  
selecting at least one type of layout sample, each of the at least one type of layout sample including at least one layout element laid in a layout frame;  
determining the structure of each selected layout sample for each layout element; and  
producing a layout template in which the layout distribution of each layout element in the layout frame is registered in connection with corresponding likelihood in accordance with the structure of each layout element.
5. A layout system, comprising:  
a template production device to determine the structure of at least one type of layout sample, each of the at least one type of layout sample including at least one layout element laid in a layout frame, for each layout element, and producing a layout template in which a layout distribution of each layout element in the layout frame is registered in connection with corresponding likelihood; and

a layout device to lay out at least one new layout element in the layout frame in accordance with the layout template produced by the template production device.

6. The layout system according to claim 5,

when the layout device creates a layout by laying at least one new layout element in the layout frame of the layout template, the layout device lays the at least one new layout element in accordance with the likelihood of each element-laying area for each layout element registered in the layout template.

7. The layout system according to claim 6,

when the likelihood is equal for at least two element-laying areas of each layout element, the layout device creates the layout by laying each of the at least one new layout element in accordance with a priority assigned to the at least two element-laying areas.

8. The layout system according to claim 5,

the layout device lays the at least one new layout element by performing a process including dividing the layout template into a plurality of cells; calculating, for each cell, the mean values of vertical and horizontal lengths of each layout element that contains the cell and the likelihood of each layout element; calculating the sum of likelihood of all cells included in an element-laying area placed so as to extend, from a cell taken as an extension start point, in a vertical direction by a length equal to the calculated mean vertical length and in a horizontal direction by a length equal to the calculated mean horizontal length, for each possible location of the extension start point; and selecting an extension start point that results in a greatest sum of likelihood and laying a corresponding new layout element in the element-laying area extending from the selected extension start point.

9. The layout system according to claim 8,

the layout device employs the area or the aspect ratio of each layout element instead of or in addition to the mean values, assigned to each cell, of vertical and horizontal lengths of each layout element.

10. The layout system according to claim 5,

the layout elements are classified into image information whose main part is an image and text information whose main part is text;

when the template production device sets the layout distribution and the likelihood of a layout element of text information, the template production device also sets information indicating a font type and a font size of the text information; and

when the layout device lays the layout element of text information in a particular element-laying area, the layout device determines the font type and the font size of

the layout element in accordance with the information indicating the font type and the font size assigned to the element-laying area.

11. The layout system according to claim 5,  
at least one of the plurality of layout elements assigned a weighting factor; and  
for the layout elements assigned the weighting factor, the template production device weights the likelihood of the layout element in the plurality of layout samples by the weighting factor, and the template production device registers, in the layout template, the element-laying area of the layout element in the layout frame in connection with the weighted likelihood.

12. A layout system according to claim 5,  
a weighting factor assigned to each layout sample as a whole; and  
the template production device weights the likelihood of each layout element in each layout sample by the weighting factor assigned to each layout sample in which the layout element is included, and the template production device registers, in the layout template, the element-laying area of the layout element in the layout frame in connection with the weighted likelihood.

13. The layout system according to claim 5,  
for an element-laying area in which at least two layout elements overlap, the template production device calculates the sums of likelihood of those at least two layout elements over the plurality of layout samples and registers, in the layout template, the calculated sums of likelihood in connection with the element-laying area.

14. A layout program, comprising:  
a template production program for determining the structure of at least one type of layout sample, each of the at least one type of layout sample including at least one layout element laid in a layout frame, for each layout element, and producing a layout template in which a layout distribution of each layout element in the layout frame is registered in connection with corresponding likelihood; and

a layout program to lay at least one new layout element in the layout frame in accordance with the layout template produced by the template production program.

15. A layout method, comprising:  
determining the structure of at least one type of layout sample, each of the at least one type of layout sample including at least one layout element laid in a layout frame, for each layout element;

producing a layout template in which a layout distribution of each layout element in the layout frame is registered in connection with corresponding likelihood; and  
laying at least one new layout element in the layout frame in accordance with the produced layout template.

16. A data structure of a layout template for use in creating a layout in accordance with the layout template,

the layout template is produced by using a plurality of layout samples each including at least one layout element laid in a predetermined layout frame, such that, for each layout element, an element-laying area of the layout element in the layout frame is registered in connection with likelihood of the layout element in the plurality of layout samples.